

We claim as our invention:

1. A method of analyzing an image including text, the method comprising:
mapping an image to determine regions of text;
analyzing portions of the image in accordance with characteristics of selected regions of the text to develop a desired ordering of at least the selected regions in accordance with a textual relationship between the selected regions.
2. The invention of claim 1 wherein the image includes a complex textual format having one or more articles of text, such as found in a newspaper or magazine page, and the desired ordering is related to the order in which the selected regions are to be presented in a different format appropriate for a specific use.
3. The invention of claims 1 or 2 wherein the desired ordering of the regions includes a preferred order of words in said selected regions.
4. The invention of claims 1 or 2 wherein the desired ordering of the regions is appropriate for use by a human reader.
5. The invention of claims 1 or 2 wherein the desired ordering of the regions is appropriate for use in transferring the text over a network.
6. The invention of claims 1 or 2 wherein the desired ordering of the regions is appropriate for use in a database.
7. The invention of claims 1 or 2 wherein the desired ordering of the regions is appropriate for use by a search function.
8. The invention of claims 1 or 2 wherein the desired ordering of the regions is appropriate for use by a word processor.

9. The invention of claims 1 or 2 wherein the desired ordering of the regions is appropriate for use by a printer.
10. The invention of claims 1 or 2 wherein the analyzing further comprises:
developing a frameset of frame and sub-frame areas of the image each including related regions of text.
11. The invention of claims 1 or 2 wherein the analyzing further comprises:
identifying groups of regions of text related to textual articles and sub-articles.
12. The invention of claims 1 or 2 wherein the analyzing further comprises:
ordering regions within a textual article.
13. The invention of claims 1 or 2 wherein the analyzing further comprises:
identifying groups of regions of text related to textual articles; and
ordering regions within textual articles.
14. The invention of claims 1 or 2 wherein the analyzing further comprises:
normalizing the textual image.
15. The invention of claims 1 or 2 wherein the analyzing further comprises:
columnizing the textual image.
16. The invention of claims 1 or 2 wherein the analyzing further comprises:
regionalizing the textual image.
17. A system for analyzing an image including text, comprising:
means for mapping an image to determine regions of text;
means for analyzing portions of the image in accordance with characteristics of selected regions of the text to develop a desired ordering of the selected regions in accordance with a textual relationship between the selected regions.

18. The invention of claim 17 wherein the image includes a complex textual format having one or more articles of text, such as found in a newspaper or magazine page, and the desired ordering is related to the order in which the selected regions are to be presented in a different format appropriate for a specific use.
19. The invention of claims 18 or 19 wherein the desired ordering of the regions includes a preferred order of words in said selected regions.
- 20.. The invention of claims 18 or 19 wherein the desired ordering of the regions is appropriate for use by a human reader.
21. The invention of claims 18 or 19 wherein the desired ordering of the regions is appropriate for use in transferring the text over a network.
22. The invention of claims 18 or 19 wherein the desired ordering of the regions is appropriate for use in a database.
23. The invention of claims 18 or 19 wherein the desired ordering of the regions is appropriate for use by a search function.
24. The invention of claims 18 or 19 wherein the desired ordering of the regions is appropriate for use by a word processor.
25. The invention of claims 18 or 19 wherein the desired ordering of the regions is appropriate for use by a printer.
26. The invention of claims 18 or 19 wherein the means for analyzing further comprises:
means for developing a frameset of frame and sub-frame areas of the image each including related regions of text.

27. The invention of claims 18 or 19 wherein the means for analyzing further comprises:
means for identifying groups of regions of text related to textual articles and sub-articles.
28. The invention of claims 18 or 19 wherein the means for analyzing further comprises:
means for ordering regions within a textual article.
29. The invention of claims 18 or 19 wherein the means for analyzing further comprises:
means for identifying groups of regions of text related to textual articles; and
means for ordering regions within textual articles.
30. The invention of claims 18 or 19 wherein the means for analyzing further comprises:
means for normalizing the textual image.
31. The invention of claims 18 or 19 wherein the means for analyzing further comprises:
means for columnizing the textual image.
32. The invention of claims 18 or 19 wherein the means for analyzing further comprises:
means for regionalizing the textual image.